

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. : **10/708,068**
Inventor : **KOERNER, Scott A. et al.**
Title : **"Engine Mounted Fault Indicators"**
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Claims 18-28 and 37-50 are currently pending in the application.

In regard to Rejections of Claims 25 and 46 Under 35 U.S.C. § 112

The Examiner has rejected claims 25 and 46 under 35 U.S.C. § 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed, and under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The Applicants respectfully disagree with both of the above rejections.

The Applicants submit that a person skilled in the art of outboard engines would readily understand how to access information stored on a recordable medium. In particular, the Examiner has stated that he is aware of "many different ways to access the information". These "many different ways" would all be evident to a person skilled in the art upon reading the present application.

Providing a recordable medium accessible by a service technician, and a technician accessing the recordable medium, is an operation known in the art of outboard engines. One of ordinary skill in this art would readily understand to access the recordable medium in an appropriate way, and would know to determine an appropriate way of accessing the recordable medium according to the particular specimen of outboard motor with which he is presented and the type of recordable medium provided therewith. Therefore, there is no need to set forth a particular manner of performing the well-known function of accessing a recordable medium in an outboard engine.

It is well settled that an applicant need not expressly set forth in his specification that which would be understood by persons skilled in the art.

[...]

The presence or absence of a working example is but one factor to be considered in determining whether the specification *as a whole* is sufficient under the statute and rules. Attendant relevant circumstances, such as the nature of the invention, the state of the prior art and relative skill of those in that art, should be given full consideration. The circumstances here would seem to indicate that the presence of a specific working example, denominated as such, is unnecessary.

- ***In re Honn and Sims*, 150 USPQ 652 at 657 (CCPA 1966)**

The best mode requirement of § 112 is not violated by the unintentional omission of information that would be readily known to persons skilled in the field of the invention.

[...]

Known ways of performing a known operation cannot be deemed intentionally concealed absent evidence of intent to deliberately withhold that information.

- ***High Concrete Structures Inc. v. New Enterprise Stone and Lime Co.*, 71 USPQ2d 1948 at 1950-1951 (Fed. Cir. 2004)**

Therefore, the Examiner's rejections of claims 25 and 46 under 35 U.S.C. § 112 are improper.

In regard to Rejection of Claims 18-20, 24-28, 37-41 and 45-50 under 35 U.S.C. § 103(a)

The Examiner has rejected claims 18-20, 24-28, 37-41 and 45-50 under 35 U.S.C. § 103(a) as being unpatentable over Bouse, U.S. Publication No. 2004/0019461, in view of Koerner, U.S. Patent No. 6,820,584.

The Applicants submit that a person skilled in the art would not be motivated to combine Bouse and Koerner, because they are not from the same field of endeavor. Contrary to the Examiner's assertion, Bouse does not disclose an outboard motor, nor is Bouse directed to an art related to outboard motors. Rather, Bouse discloses a device for monitoring a process plant, for example to process petroleum or other chemicals.

Referring to paragraph [0002] of Bouse, in the “Field of the Technology” section,

The present invention relates generally to process plant monitoring devices and, more particularly, to a device that performs on-line monitoring for rotating equipment within a process plant.

Referring to paragraph [0003] of Bouse, in the “Description of the Related Art” section,

Process control systems, like those used in chemical, petroleum or other processes, typically include one or more centralized or decentralized process controllers communicatively coupled to at least one host or operator workstation and to one or more process control and instrumentation devices, such as field devices, via analog, digital or combined analog/digital buses. Field devices, which may be, for example valves, valve positioners, switches, transmitters, and sensors (e.g., temperature, pressure and flow rate sensors), perform functions within the process such as opening or closing valves and measuring process parameters.

Bouse makes no mention of outboard motors. The only instances of the term “outboard” in Bouse refer to the locations of sensors on a device situated in a process plant, where a particular device has both “inboard” and “outboard” sensors mounted thereon, i.e. sensors at inboard and outboard locations on a particular device. Referring to paragraph [0041] of Bouse:

The motor and pump set 202 includes a motor 206 connected by a shaft and coupling assembly 208 to a pump 210. Three outboard sensors 212 and three inboard sensors 214 are mounted on the motor 206. In both the outboard and inboard positions, the sensors 212 and 214 preferably measure the horizontal, vertical and axial vibration, respectively.

It is apparent that Bouse does not teach an outboard motor, but rather a motor 206 including both outboard sensors 212 and inboard sensors 214. The motor 206 of Bouse is unrelated to outboard engines, or water craft, but is instead designed for a large process plant containing many pieces of heavy equipment. A person skilled in the art of outboard engines would not apply Bouse to a problem in the field of outboard engines, because he would not look to a system designed for monitoring a variety of heavy machinery for solutions.

Therefore, there is no motivation to apply Bouse to the field of the present application, or to combine it with the teachings of Koerner, which relates to outboard motors.

Even if it were possible to combine the teachings of Bouse and Koerner, which is denied, the combination would still fail to teach all of the features of claims 18-20, 24-28, 37-41 and 45-50, in particular the following feature of claim 18:

a multi-mode set of fault indicators mounted directly to a portion of the internal combustion engine,
and the following feature of claim 38:

a fault indicator mounted to a portion of the outboard motor

As stated above, Bouse does not disclose an outboard engine. By extension, Bouse does not teach a location of an indicator, as recognized by the Examiner on page 3 of the final rejection. Therefore, Bouse fails to teach “a multi-mode set of fault indicators mounted directly to a portion of the internal combustion engine” or “a fault indicator mounted to a portion of the outboard motor” as claimed by the Applicants.

Koerner fails to remedy this deficiency in Bouse. Koerner discloses an outboard motor having an ECU mounted to an internal combustion engine. The ECU transmits a fault signal regarding a low oil pressure condition to a warning system. The warning system can include indicator LEDs, gauges, bells, or other components configured to warn of other fault conditions (see col. 4, lines 26-39). However, Koerner is silent as to the location of the warning system.

Referring to page 3 of the final rejection, the Examiner has stated that “[r]egarding the location for the indicator, i.e., mounted on the engine, it would have been considered to be an obvious choice of mechanical design... To optimize or select the suitable location for the indicator would be within the ability of ordinary skilled in this art.” The Applicants respectfully disagree.

Referring to paragraphs [0002]-[0003] of the specification, it is known in the art of water craft to provide a dashboard at the front of a boat, and to provide gauges or other indicators on this dashboard. A person skilled in the art looking to place a fault indicator on a water craft would readily select the front of a vessel as the location therefor, so that the indicator can be observed by a user while operating the vessel from a position at the front of the vessel.

It is also known, in some applications, to provide a simplified dashboard with fewer indicators, or no dashboard indicators at all. Referring to paragraph [0003] of the specification, in the situation where a water craft is equipped with fewer or no sensors and a user desires to know more complex diagnostic information about an engine, it is known in the art that the user must either connect diagnostic equipment to the engine, or transport the engine to a technician for servicing.

There is no teaching in the art to provide an indicator anywhere other than the front of the vessel, and in particular there is no motivation in the art to modify the teachings of Bouse and/or Koerner, whose combination is not admitted, to provide an indicator mounted directly to an engine or an outboard motor. In particular, the Examiner has not provided any authority or motivation to

support his contention that a person ordinary skill in the art would be motivated to select the location for the indicator as claimed, without the benefit of the Applicants' specification.

The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device.

- ***Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).***

Providing a multi-mode set of fault indicators mounted directly to a portion of the internal combustion engine or a fault indicator mounted to a portion of the outboard motor provides advantages over the prior art as described in the specification. Further, a person skilled in the art would not know to choose this location for an indicator except with the benefit of hindsight after reading the Applicants' specification.

Therefore, for all the reasons set out herein above, there is no motivation to combine the teachings of Bouse and Koerner, and even if they could be combined, which is denied, at least one element of claims 18 and 38 would not be taught by their combination, and would not be obvious to a person skilled in the art. As such, the Examiner is requested to withdraw his rejection of claim 18 and claims 19, 20, 24-28 and 37 depending therefrom, as well as claim 38 and claims 39-41 and 45-50 depending therefrom.

Respectfully submitted,

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